

U.S. SERIAL NO: 07/867, 819
FILED: April 13, 1992
AMENDMENT

On page 29, line 10, please insert --(SEQ ID NO:121),-- after "PGIRGPPP".

On page 29, lines 14 and 22, please insert --(amino acids 4-11 of SEQ ID NO:14),--
- after "PPPGMRPP".

Please replace the Sequence Listing, pages 30-96, mailed September 9, 1993, with the enclosed Sequence Listing, pages 30-69, and renumber the remaining pages in the application to be consecutive.

In the Claims

1. (four times amended) A peptide forming a linear epitope for a human autoantibody selected from the group of peptides of less than forty amino acids, wherein the sequence of the epitope begins with the amino acid numbered from the amino terminus followed by the listed amino acid sequence consisting of

the Ro/SSA epitopes: 30, MNRLHRFL (SEQ ID NO:37), 37, LCFGSEGGT (SEQ ID NO:38), 38, CFGSEGGT (amino acids 2-9 of SEQ ID NO:38), 41, SEGGTYIIEQ (SEQ ID NO:39), 42, EGGTYIIEQ (amino acids 2-11 of SEQ ID NO:39), 44, GTYYIIEQ (amino acids 4-11 of SEQ ID NO:39), 44, GTYYI (amino acids 4-8 of SEQ ID NO:39), 76, EIKSFSQEGRT (SEQ ID NO:40), 78, KSFSQEGR (amino acids 3-10 of SEQ ID NO:40), 81, SQEGRTTKQ (SEQ ID NO:41), 84, GRTTKQEP (SEQ ID NO:42), 106, STKQAAFKAV (amino acids 2-11 of SEQ ID NO:43), 105, ISTKQAAFKAVS (SEQ ID NO:43), 108, KQAAFKAV (amino acids 4-11 of SEQ ID NO:43), 111, AFKAVSEVC (SEQ ID NO:44), 126,

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FTFIQFKKDLKESMK (SEQ ID NO:45), 130, QFKKDLKE (amino acids 5-12 of SEQ ID NO:45), 138, SMKCGMWGRA (SEQ ID NO:46), 139, MKCGMWGRA (amino acids 2-10 of SEQ ID NO:46), 142, GMWGRALRKAIA (SEQ ID NO:47), 145, GRALRKAI (amino acids 4-11 of SEQ ID NO:47), 165, ALAVTKYKQRNGWSHKDLLRLSH (SEQ ID NO:48), 169, TKYKQRNG (amino acids 5-12 of SEQ ID NO:48), 173, QRNGWSHK (amino acids 9-16 of SEQ ID NO:48), 182, LLRLSHLKPSS (SEQ ID NO:49), 184, RLSHLKPS (amino acids 3-10 of SEQ ID NO:49), 199, TKYITKGW (amino acids [2-9] 3-10 of SEQ ID NO:71), 202, ITKGWKEV (amino acids [5-12] 6-13 of SEQ ID NO:71), 210, HELYKEKA (SEQ ID NO:50), 212, LYKEKALSV (SEQ ID NO:51), 216, KALSVETEKLLKYL (SEQ ID NO:52), 222, TEKLLKYL (amino acids 7-14 of SEQ ID NO:52), 224, KLLKYLEA (SEQ ID NO:53), 229, LEAVEKVKRTKDE (SEQ ID NO:54), 234, KVKRTKDE (amino acids 6-13 of SEQ ID NO:54), 257, HLLTNHLKSKEVWKALLQEMPL (SEQ ID NO:55), 263, LKSKEVWK (amino acids 7-14 of SEQ ID NO:55), 264, KSKEVWKA (amino acids 8-15 of SEQ ID NO:55), 265, SKEVWK (amino acids 9-14 of SEQ ID NO:55), 280 ALLRNLGKMTA (SEQ ID NO:56), 283, RNLGKMT (amino acids 4-10 of SEQ ID NO:56), 285, LGKMTANS (SEQ ID NO:57), 308, LCNEKLLKKARIHPFHI (SEQ ID NO:58), 313, LLKKARI (amino acids 6-12 of SEQ ID NO:58), 315, KKARIHPF (amino acids 8-15 of SEQ ID NO:58), 330, TYKTGHGLRGKCLKWRPDE (SEQ ID NO:59), 331, YKTGHGL (amino acids 2-8 of SEQ ID NO:59), 352, ALDAAFYK (SEQ ID NO:60), 355, AAFYKTFKTVEPTGKRFLLA (SEQ ID

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NO:61), 379, ASMNQRLVGS (SEQ ID NO:62), 365, EPTGKRFL (amino acids 11-18 of SEQ ID NO:61), 398, AMCMVVTR (SEQ ID NO:63), 414, AFSDEMVP (SEQ ID NO:64), 420, VPCPVTTD (SEQ ID NO:65), 433, VLMAMSQI (SEQ ID NO:66), 445, TDCSLPMI (SEQ ID NO:67), 449, LPMIWAQKTNTPA (amino acids 3-15 of SEQ ID NO:68), 472, TFAGGVHPAI (SEQ ID NO:69), 472, TFAGGVHP (amino acids 1-8 of SEQ ID NO:69), 481, IALREYRKKMDIPAKL (SEQ ID NO:70), 484, REYRKKMD (amino acids 4-11 of SEQ ID NO:70).

2. (twice amended) A peptide of claim 1 consisting of between four and twenty five amino acids.

3. (twice amended) A peptide of claim 2 reactive with anti-Ro/SSA polyclonal antibodies.

4. (twice amended) A peptide of claim 2 reactive with anti-SM B/B' polyclonal antibodies.

5. (twice amended) A peptide of claim 2 reactive with anti-La/SSB polyclonal antibodies.

10. (twice amended) A peptide of claim 1 labelled with a compound selected from the group consisting of dyes, fluorescent labels, chemiluminescent labels, enzymes, and radioactive labels.

11. (twice amended) A peptide of claim 1 immobilized onto a substrate.

12. (five times amended) A method for screening patients for autoantibodies to Ro/SSA comprising reacting a biological sample with a peptide forming a linear epitope selected from the group of peptides of less than forty amino acids, beginning with the amino acid numbered from the amino terminus followed by the listed amino acid sequence consisting of the Ro/SSA epitopes: 30, MNRLHRFL (SEQ ID NO:37), 37, LCFGSEGGT (SEQ ID NO:38), 38, CFGSEGGT (amino acids 2-9 of SEQ ID NO:38), 41, SEGGTYYYIKEQ (SEQ ID NO:39), 42, EGGTYYYIKEQ (amino acids 2-11 of SEQ ID NO:39), 44, GTYYIKEQ (amino acids 4-11 of SEQ ID NO:39), 44, GTYYI (amino acids 4-8 of SEQ ID NO:39), 76, EIKSFSQEGRT (SEQ ID NO:40), 78, KSFSQEGR (amino acids 3-10 of SEQ ID NO:40), 81, SQEGRTTKQ (SEQ ID NO:41), 84, GRTTKQEPM (SEQ ID NO:42), 106, STKQAAFKAV (amino acids 2-11 of SEQ ID NO:43), 105, ISTKQAAFKAVS (SEQ ID NO:43), 108, KQAAFKAV (amino acids 4-11 of SEQ ID NO:43), 111, AFKAVSEVC (SEQ ID NO:44), 126, FTFIQFKKDLKESMK (SEQ ID NO:45), 130, QFKKDLKE (amino acids 5-12 of SEQ ID NO:45), 138, SMKCGMWGRA (SEQ ID NO:46), 139, MKCGMWGRA (amino acids 2-10 of SEQ ID NO:46), 142, GMWGRALRKAIA (SEQ ID NO:47), 145, GRALRKAI (amino acids 4-11 of SEQ ID NO:47), 165, ALAVTKYKQRNGWSHKDLLRLSH (SEQ ID NO:48), 169, TKYKQRNG (amino acids 5-12 of SEQ ID NO:48), 173, QRNGWSHK (amino acids 9-16 of SEQ ID NO:48), 182, LLRLSHLKPS (SEQ ID NO:49), 184, RLSHLKPS (amino acids 3-10 of SEQ ID NO:49), 199, TKYITKGW (amino acids [2-9] 3-10 of SEQ ID NO:71), 202,

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